TASK: M1.T1P  
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GITHUB LINK: <https://github.com/KimChhorn123/SIT315>

Schematic diagram

A blue circuit board with wires connected to it

Description automatically generated

System monitoring log

A white rectangular object with a black border

Description automatically generated

Code for Program

const int motionSensorPin = 2; // Pin for the HC-SR505 sensor

const int ledPin = 13; // Built-in LED pin (or external LED connected to pin 13)

void setup() {

Serial.begin(9600); // Initialize the serial monitor

pinMode(motionSensorPin, INPUT);

pinMode(ledPin, OUTPUT);

}  
void loop() {

int sensorValue = digitalRead(motionSensorPin); // Read the motion sensor value

Serial.print("Motion Sensor Value: "); // Print the sensor value to the Serial Monitor

Serial.println(sensorValue);

if (sensorValue == HIGH) {

digitalWrite(ledPin, HIGH); // Turn the LED on if motion is detected

Serial.println("LED ON");

} else {

digitalWrite(ledPin, LOW); // Turn the LED off if no motion is detected

Serial.println("LED OFF");

}

delay(500); // Add a small delay to avoid overwhelming the serial monitor

}